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**REMARKS**

**Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.**

With respect to non considered DE-195 25 831 and DE-197 20 255, the Applicant notes the that the corresponding equivalent U.S. cases, namely, United States Patent Nos. 5,957,804 and 6,220,984 were already substantively considered by the Examiner. In order to complete the record of this case, complete copies of those two references are submitted for the convenience of the Examiner.

Claims 20-37 are presently pending in the Application and the Examiner has rejected claims 20-37 under 35 U.S.C. § 102(b), as being anticipated by Schulz et al. '984 (U.S. Patent No. 6,220,984). The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

First considering the present invention as recited in the claims, it will be noted that the claim 20 is amended to more clearly and explicitly recite and emphasize the distinctions between the presently claimed invention and the applied art discussed below. The features of the present invention, as recited in amended claim 20, are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art. It will be noted that because claims 21-37 all directly or indirectly depend from claim 20 claims 21-37 and thereby incorporate all recitations and limitations of claim 20 by such dependency.

It will also be noted that all amendments to claim 20 are fully supported by the specification, the drawings and the claims as originally filed and that these amendments to the claims do not add any new matter to the invention, the specification or the claims.

Now considering the present invention as recited in amended claim 20, the present invention as recited therein is directed to a planetary gear train including a ring gear 14, a sun gear 4, and a plurality of planetary gears 8 rotatably mounted on a planetary gear carrier 18 by corresponding planetary gear axes 16.

According to the present invention as recited in amended claim 20—and thereby as recited in claims 21-37—each planetary gear 8 is in tooth contact with the ring gear 14 and the

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sun gear 4, the planetary gear axles 16 are mounted at an inclined angle  $\alpha$  with respect to an axle 2 of the sun gear 4, each planetary gear 8 is axially displaceable upon the corresponding planetary gear axle 16, and the ring gear 14 and the planetary gears 8 are of conical design. In addition, the gear train includes an adjusting mechanism, operatively situated between the planetary gear carrier 18 and the planetary gears 8, for adjusting a position of the planetary gears 8 on the planetary gear axles 16 for a backlash.

Now considering the teachings of Schulz et al. '984, Schulz et al. '984 describes a planetary gear set comprising a ring gear, a sun gear and a planetary gear set with various arrangements of cylindrical and conical gears and parallel and angles axes, wherein the relative axial positions of the gears may be axially adjusted to compensate for backlash.

It must be noted, however, that Schulz et al. '984 describes the planetary gears, that is, the gears located between and connecting the sun and ring gears, as comprising a stepped gearset comprised of first and second sets of stepped gears. As described by Schulz et al. '984, the first and second sets of stepped gears each comprise a set of small gears and a set of large gear wherein the small gears of the first set of stepped gears engage with the ring gear, the large gears of the first set of stepped gears engage with the small gears of the second set of stepped gears, and the large gears of the second set of stepped gears engage with the sun gear.

It is therefore apparent that there are a number of fundamental distinctions between the present invention, as recited in independent claim 20 and in dependent claims 21-37, and the teachings, suggestions, disclosures and/or hints of Schulz et al. '984. For example, in the present invention as recited in the pending claims, the planetary gear train comprises a sun gear and a ring gear connected by a conventional planetary gearset with the adjustment mechanism to compensate for backlash comprising the arrangement of conical and cylindrical gear teeth of the sun, the ring and the planetary gears and the corresponding arrangement of parallel and angled gear axes.

In fundamental contrast from the present invention, according to the Schulz et al. '984 planetary gear train the planetary gears are replaced by two sets of stepped gearsets wherein each stepped gearset engages with either the sun gear or the ring gear and the other of the two

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sets of stepped gearsets but not both. It is therefore apparent that the teachings of Schulz et al. '984 are directed to an entirely different type of planetary gear train than that of the present invention. It must also be noted in this regard that the use of two sets of stepped gearsets, in place of conventional planetary gearsets, is absolutely required by Schulz et al. '984 and that this arrangement is, in fact, a primary feature of the planetary gear set taught by Schulz et al. '984.

In yet further fundamental distinction between the present invention as recited in claim 20, and thereby in claims 21-37, and because the planetary gear train of the present invention employs a conventional arrangement of planetary gears to interconnect the ring and sun gears, *each planetary gear of the gear train of the present invention is in direct tooth to tooth engagement with both the sun gear and the ring gear and is thereby directly engaged with both the ring gear and the sun gear.*

In fundamental contrast and distinction from the present invention as recited in the claims, and because the Schulz et al. '984 planetary gear set uses two sets of stepped gears, rather than conventional planetary gears, each of the stepped gearsets is in engagement with either the ring gear or the sun gear but is *never in direct engagement with both the ring gear and the sun gear.* In fact, only a part of each stepped gearset is engaged with a corresponding one of the ring gear or the sun gear. As a consequence, not only is the Schulz et al. '984 planetary gear train more complex and more expensive than that of the present invention, it is significantly more likely to suffer from backlash because of a significantly greater number of gears for gear engagements and corresponding tolerances in the Schulz et al. '984 gear train.

It is therefore the Applicant's belief and position that, for at least the reasons discussed above, the present invention as recited in amended claim 20, and thereby as recited in dependent claims 21-37, is fully and patentably distinguished over and from the teachings, suggestions, motivations and/or hints of Schulz et al. '984, under the requirements and provisions of either 35 U.S.C. 102 and/or 103. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claims 20-37 over Schulz et al. '984, under either or both of 35 U.S.C. 102 or 103, and allow claims 20-37 as presented herein above.

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Finally briefly considering the other prior art references cited by the Examiner, Hori '336 relates to and describes a planetary gear set employing cylindrical planetary gears rather than conical gears and does not teach or suggest any form of backlash adjustment mechanism or any form of mechanism for adjusting the relationship of the planetary gears with respect to the ring or sun gears.

Mochizuki '462 describes a planetary gear set having a planetary gear adjustment mechanism to adjust for backlash but employs partial planetary gears, rather than conventional planetary gears or conical planetary gears, and is thereby not particularly relevant to the present invention.

Davis '763 relates to and describes a speed reducing gear mechanism that does not have a sun gear, and thus does not comprise a planetary gear set of the type employed in the present invention, and that does not have any form of backlash adjustment mechanism or any form of mechanism for adjusting the relationship of the planetary gears with respect to the ring or sun gears.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Schulz et al. '984 reference, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

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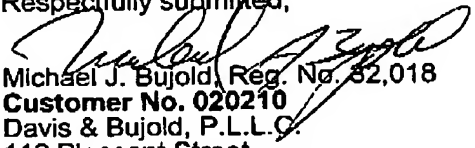
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In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,

  
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